

CLAIMS

1. A method of producing a polyurethane foam sheet, comprising the steps of applying a liquid mixture, obtained by mixing together a heated and melted hot melt urethane prepolymer (A) containing isocyanate groups at molecular terminals, and a compound (B) containing at least 2 active hydrogen atom-containing groups, onto a substrate in a sheet-like manner, and water foaming said liquid mixture by bringing said sheet-like liquid mixture into contact with water vapor.
2. A method of producing a polyurethane foam sheet, comprising the steps of introducing a liquid mixture, obtained by mixing together a heated and melted hot melt urethane prepolymer (A) containing isocyanate groups at molecular terminals, and a compound (B) containing at least 2 active hydrogen atom-containing groups, into a space between a first releasable substrate and a second releasable substrate to form a sheet-like product in a continuous manner, and water foaming said sheet-like product sandwiched between said first releasable substrate and said second releasable substrate by bringing either one surface or both surfaces of said releasable substrates into contact with water vapor.
3. A method of producing a polyurethane foam sheet, comprising the steps of introducing a liquid mixture, obtained by mixing together a heated and melted hot melt urethane prepolymer (A) containing isocyanate groups at molecular terminals, and a compound (B) containing at least 2 active hydrogen atom-containing groups, into a space between a first releasable substrate and a second releasable substrate to form a sheet-like product in a continuous manner, removing one of said first releasable substrate and said

second releasable substrate, and water foaming said sheet-like product by bringing said sheet-like product into direct contact with water vapor.

4. A method of producing a polyurethane foam sheet according to any one of claim
5 1 through claim 3, wherein said liquid mixture is produced by mixing together said heated and melted hot melt urethane prepolymer (A), said compound (B), and a urethanization catalyst (C).

5. A method of producing a polyurethane foam sheet according to any one of claim
10 1 through claim 3, wherein said hot melt urethane prepolymer (A) is a hot melt urethane prepolymer (a-2) that also contains hydrolysable alkoxysilyl groups.

6. A method of producing a polyurethane foam sheet according to any one of claim
15 1 through claim 3, wherein an isocyanate group content within said hot melt urethane prepolymer (A) is within a range from 0.5 to 10.0% by weight.

7. A method of producing a polyurethane foam sheet according to any one of claim
1 through claim 3, wherein said hot melt urethane prepolymer (A) has a melt viscosity, measured at 125°C using a cone-plate viscometer, within a range from 100 to 100,000
20 mPa.s.

8. A method of producing a polyurethane foam sheet according to any one of claim
1 through claim 3, wherein a ratio of a weight equivalence of active hydrogen atom-containing groups within said compound (B) containing at least 2 active hydrogen atom-
25 containing groups, relative to a weight equivalence of isocyanate groups within said hot

melt urethane prepolymer (A) [isocyanate group equivalence / active hydrogen atom-containing group equivalence], is within a range from 1.5 to 20.0.

9. A method of producing a laminated sheet, comprising the steps of applying a
5 liquid mixture, obtained by mixing together a heated and melted hot melt urethane prepolymer (A) containing isocyanate groups at molecular terminals, and a compound (B) containing at least 2 active hydrogen atom-containing groups, onto a substrate in a sheet-like manner, water foaming said liquid mixture by bringing said sheet-like liquid mixture into contact with water vapor to form a polyurethane foam sheet, and bonding a
10 third substrate onto said polyurethane foam sheet.

10. A method of producing a laminated sheet, comprising the steps of applying a liquid mixture, obtained by mixing together a heated and melted hot melt urethane prepolymer (A) containing isocyanate groups at molecular terminals, and a compound
15 (B) containing at least 2 active hydrogen atom-containing groups, onto a substrate in a sheet-like manner, bonding a third substrate onto said sheet-like liquid mixture to form a laminate, and water foaming said liquid mixture by bringing said laminate into contact with water vapor.

20 11. A method of producing a laminated sheet, comprising the steps of introducing a liquid mixture, obtained by mixing together a heated and melted hot melt urethane prepolymer (A) containing isocyanate groups at molecular terminals, and a compound (B) containing at least 2 active hydrogen atom-containing groups, into a space between a first releasable substrate and a second releasable substrate to form a sheet-like product in
25 a continuous manner, removing one of said first releasable substrate and said second

releasable substrate, water foaming said sheet-like product by bringing an exposed surface of said sheet-like product, and/or a remaining first or second releasable substrate, into contact with water vapor to form a polyurethane foam sheet, and bonding a third substrate to said exposed surface of said polyurethane foam sheet from which said first or second releasable substrate has been removed.

12. A method of producing a laminated sheet according to any one of claim 9 through claim 11, wherein said liquid mixture is produced by mixing together said heated and melted hot melt urethane prepolymer (A), said compound (B), and a urethanization catalyst (C).

13. A method of producing a laminated sheet according to any one of claim 9 through claim 11, wherein said hot melt urethane prepolymer (A) is a hot melt urethane prepolymer (a-2) that also contains hydrolysable alkoxysilyl groups.

14. A method of producing a laminated sheet according to any one of claim 9 through claim 11, wherein an isocyanate group content within said hot melt urethane prepolymer (A) is within a range from 0.5 to 10.0% by weight.

15. A method of producing a laminated sheet according to any one of claim 9 through claim 11, wherein a ratio of a weight equivalence of active hydrogen atom-containing groups within said compound (B) containing at least 2 active hydrogen atom-containing groups, relative to a weight equivalence of isocyanate groups within said urethane prepolymer (A) [isocyanate group equivalence / active hydrogen atom-containing group equivalence], is within a range from 1.5 to 20.0.